

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[AZ 69-0012; FRL-]

Approval and Promulgation of Implementation Plans;

Arizona - Maricopa County PM-10 Nonattainment Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed Rule.

SUMMARY: EPA is proposing to approve in part and disapprove in part the final Plan for Attainment of the 24-hour PM-10 Standard - Maricopa County PM-10 Nonattainment Area, (May 1997) (plan or microscale plan) submitted by the Arizona Department of Environmental Quality on May 7, 1997. The microscale plan evaluates attainment of the 24-hour particulate matter (PM-10) national ambient air quality standard at four monitoring locations in the Maricopa County (Phoenix), Arizona, PM-10 nonattainment area. EPA is proposing to approve the attainment and reasonable further progress (RFP) demonstrations for two of these sites (Salt River and Maryvale) and disapprove them for two other sites (West Chandler and Gilbert). EPA is also proposing to approve the reasonably available control measure/best available control measure (RACM/BACM) demonstrations in the microscale plan for some significant source categories of PM-10, but disapprove them for others.

DATES: Comments on this proposal must be received in writing by [insert date 14 days after publication of this notice]. Comments should be addressed to the contact listed below.

ADDRESSES: Copies of the State's submittals, the technical support document, and other information are contained in the docket for this rulemaking. A copy of this notice and the TSD are also available in the air programs section of EPA Region 9's website, <http://www.epa.gov/region09>. The docket is available for inspection during normal business

hours at the following locations:

U.S. Environmental Protection Agency, Region 9, Office of Air Planning, Air Division, 17th Floor, 75 Hawthorne Street, San Francisco, California 94105. (415) 744-1248.

Arizona Department of Environmental Quality, Office of Outreach and Information, First Floor, 3033 N. Central Avenue, Phoenix, Arizona 85012. (602) 207-2217.

Maricopa County Environmental Services Department, Technical Services Division, 1001 N. Central Avenue, Suite 201, Phoenix, Arizona 85004 (602) 506-6010.

FOR FURTHER INFORMATION CONTACT: Frances Wicher, Office of Air Planning (AIR-2), U.S. Environmental Protection Agency, Region 9, 75 Hawthorne Street, San Francisco, California 94105. (415) 744-1248.

SUPPLEMENTARY INFORMATION:

I. Background

A. Clean Air Act Requirements

1. Designation and Classification

On the date of enactment of the 1990 Clean Air Act Amendments, PM-10 areas meeting the conditions of section 107(d) of the Act, including portions of Maricopa County (the Maricopa County PM-10 nonattainment area), were designated nonattainment for the PM-10 national ambient air quality standards (NAAQS)¹ by operation of law. Once an area is designated nonattainment, section 188 of the Clean Air Act (CAA) outlines the process for classification of the area and establishes the area's attainment date. In accordance with section 188(a), at the time of designation, all PM-10 nonattainment areas were initially classified as "moderate" by operation of law. 56 FR 11101 (March 15, 1991).

A moderate area could subsequently be reclassified as "serious" under CAA section 188(b)(1), if at any time, EPA determined that the area could not practicably attain the PM-10 NAAQS by the applicable attainment date

for moderate areas, December 31, 1994. Moreover, a moderate area was reclassified by operation of law if EPA determined after the applicable attainment date that, based on actual air quality data, the area was not in attainment after that date. CAA section 188(b)(2).

On May 10, 1996, EPA published a final reclassification of the Maricopa County PM-10 nonattainment area as a serious PM-10 nonattainment area based on actual air quality data. 61 FR 21372. Having been reclassified, the area is required to meet the serious area requirements in the CAA, including a demonstration that the area will attain the PM-10 NAAQS as expeditiously as practicable but no later than December 31, 2001. CAA sections 188(c)(2) and 189(b). Pursuant to section 189(b)(2), the State of Arizona must submit a serious area plan addressing both PM-10 NAAQS for the area by December 10, 1997.

2. Moderate Area Planning Requirements

The air quality planning requirements for PM-10 nonattainment areas are set out in subparts 1 and 4 of title I of the Clean Air Act. EPA has issued a "General Preamble"² describing EPA's preliminary views on how the Agency intends to review SIPs and SIP revisions submitted under Title I of the Act, including those state submittals containing moderate PM-10 nonattainment area SIP provisions.

Those states containing initial moderate PM-10 nonattainment areas were required to submit, among other things, the following provisions by November 15, 1991:

(a) provisions to assure that reasonably available control measures (RACM) (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology (RACT)) shall be implemented no later than December 10, 1993 (CAA sections 172(c)(1) and 189(a)(1)(C));

(b) provisions to assure implementation of RACT on major stationary sources of PM-10 precursors except where EPA has determined that such

sources do not contribute significantly to exceedances of the PM-10 standards (CAA section 189(e));

(c) either a demonstration (including air quality modeling) that the plan will provide for attainment as expeditiously as practicable but no later than December 31, 1994 or a demonstration that attainment by that date is impracticable (CAA sections 188(c)(1) and 189(a)(1)(B));

(d) for plan revisions demonstrating attainment, quantitative milestones which are to be achieved every 3 years and which demonstrate reasonable further progress (RFP) toward attainment by December 31, 1994 (CAA section 189(c));³ and

(e) for plan revisions demonstrating impracticability, such annual incremental reductions in PM-10 emissions as are required by part D of the Act or may reasonably be required by the Administrator for the purpose of ensuring attainment of the PM-10 NAAQS by the applicable attainment date (CAA sections 172(c)(2) and 171(1)).

Moderate area plans were also required to meet the generally applicable SIP requirements for reasonable notice and public hearing under section 110(1), necessary assurances that the implementing agencies have adequate personnel, funding and authority under section 110(a)(2)(E)(i) and 40 CFR § 51.280; and the description of enforcement methods as required by 40 CFR § 51.111, and EPA guidance implementing these sections.

3. Serious Area Planning Requirements

EPA has issued an Addendum to the General Preamble (Addendum) describing the Agency's preliminary views on how it intends to review SIPs and SIP revisions containing serious area plan provisions.⁴

Moderate PM-10 areas that have been reclassified to serious, such as the Maricopa area, in addition to meeting the moderate area requirements outlined above, must submit a plan that includes provisions addressing additional requirements. The additional serious area requirements that are relevant to this proposed action include:

(a) provisions to assure that the best available control measures (BACM) (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of best available control technology (BACT)) for the control of PM-10 shall be implemented no later than 4 years after the area is reclassified (CAA section 189(b)(1)(B));

(b) provisions to assure implementation of BACT on major stationary sources of PM-10 precursors except where EPA has determined that such sources do not contribute significantly to exceedances of the PM-10 standards (CAA section 189(e));

(c) a demonstration (including air quality modeling) that the plan will provide for attainment as expeditiously as practicable but no later than December 31, 2001 (CAA sections 188(c)(2) and 189(b)(1)(A)(i));⁵ and

(d) for plan revisions demonstrating attainment, quantitative milestones which are to be achieved every 3 years and which demonstrate RFP toward attainment by December 31, 2001 (CAA section 189(c)).

As discussed above in connection with the moderate area plan requirements, SIPs submitted to meet the CAA's serious area requirements must conform to general requirements applicable to all SIPs.

B. EPA Approval of Arizona's Moderate Area PM-10 Plan

On July 28, 1994, EPA proposed to approve the State's moderate area PM-10 implementation plan revision for the Maricopa area. 59 FR 38402. Among other elements in that plan, EPA proposed to approve the State's RFP and RACM demonstrations as meeting the requirements of sections 171(1), 172(c)(1), 172(c)(2), and 189(a)(1)(C) of the CAA. Based on its approval of the RACM demonstration, EPA also proposed to approve, as meeting the requirements of section 189(a)(1)(B), the State's demonstration that even with the implementation of all RACM by December 10, 1993, it was impracticable for the Maricopa area to attain the PM-10 NAAQS by December 31, 1994.⁶

During the public comment period on the EPA's proposed action, the Arizona Center for Law in the Public Interest (ACLPI) submitted lengthy comments on many aspects of EPA's proposed approval of the State's moderate area PM-10 plan. Among ACLPI's comments were claims that the plan as submitted failed in numerous respects to meet the moderate area requirements of the CAA for RACM, RFP and attainment demonstrations. ACLPI further claimed that the State's impracticability and RACM demonstrations were additionally deficient in that the State had failed to address both the annual and 24-hour PM-10 standards as required by the CAA and EPA guidance. In response to this comment, EPA concluded that the State's demonstration that the Maricopa area could not practicably attain the annual standard was sufficient to meet the requirements of section 189(a)(1)(B) and therefore a separate analysis was not necessary for the 24-hour standard.

On April 10, 1995, having considered ACLPI's comments, EPA published a final rule in the Federal Register approving the State's moderate area PM-10 SIP for the Maricopa area. 60 FR 18010. In its final action, EPA approved, among other elements of the plan, the State's RACM and RFP demonstrations, and the State's demonstration that even with the implementation of all RACM by December 10, 1993, it was not practicable for the Maricopa area to attain the PM-10 NAAQS by December 31, 1994.

C. Ninth Circuit Litigation

On May 1, 1995, ACLPI filed, on behalf of two Phoenix residents, a petition for review, Ober v. EPA, No. 95-70352, of EPA's approval of Arizona's moderate area PM-10 plan for the Maricopa area in the United States Court of Appeals for the Ninth Circuit. On May 14, 1996, the court issued its opinion in the Ober case vacating EPA's approval of the State's plan.⁷

As it relates to this proposed rulemaking, the court found that the State was required to address in its SIP the moderate area requirements in the CAA regarding RFP, RACM and attainment or impracticability for both the

24-hour and the annual PM-10 NAAQS. The court concluded that because there are two separate NAAQS for PM-10, the CAA requires an implementation plan to address each of them. In order to remedy the failure of the State to address the required demonstrations for the 24-hour standard, the court required EPA to in turn require the State to submit those demonstrations. 84 F.3d at 311.

D. EPA's Response to the Ober Opinion

In the wake of the Ninth Circuit's Ober opinion, EPA considered how to appropriately implement the court's directive in the context of the State's then prevailing PM-10 planning efforts for the Maricopa area. The Maricopa area was reclassified as a serious PM-10 nonattainment area just days before the case was decided and, as noted above, the State is now required to submit a new PM-10 plan meeting the serious area requirements by December 10, 1997. Simply put, EPA had to reconcile, with respect to both timing and content, the court's mandate that the State submit a plan correcting its moderate area plan deficiencies regarding the 24-hour standard concurrent with its responsibility to submit a plan meeting the serious area requirements for both NAAQS.

1. Timing

As an initial matter, EPA concluded that, given the substantial overlap of the moderate and serious area planning requirements, it would not be in the public interest to require the State to divert its scarce resources into two independent planning exercises. At the same time the Agency recognized that deferring submittal of a plan addressing the moderate area plan deficiencies until the serious area submittal deadline of December 10, 1997 would not constitute a timely response to the court. Therefore EPA, in consultation with the Arizona Department of Environmental Quality (ADEQ) and the Maricopa County Environmental Services Department (MCESD), decided that the State would incorporate the moderate area plan elements for the 24-hour standard into the serious area plan, but would split that planning

effort into two related parts. Accordingly, EPA required submittal of a limited, locally-targeted plan (microscale plan) meeting both the moderate and serious area requirements for the 24-hour standard by May 9, 1997 (extended from an original deadline of April 18) and a full regional plan meeting those requirements for both the 24-hour and annual standards by December 10, 1997. Thus, the microscale and regional plans taken together would satisfy both the moderate area requirements mandated by the court and the serious area planning requirements for both standards. Therefore, until the regional plan is submitted and reviewed by EPA, it is premature to conclude that the microscale plan fully meets or does not meet the CAA requirements discussed below. The subject of this proposed action is the microscale plan only.

The submittal deadlines and statutory requirements applicable to the microscale plan are contained in letters dated September 18, 1996 and March 5, 1997 from Felicia Marcus, Regional Administrator, EPA Region IX, to Russell Rhoades, Director, ADEQ (Marcus letter).

2. Content

As specified in EPA's September 18, 1996 letter to ADEQ, the microscale plan was to address the 24-hour standard violations at five specific monitors and meet the statutory attainment, RACM and RFP requirements for moderate PM-10 areas and EPA guidance. In addition, the microscale plan was to meet the statutory attainment, BACM and RFP requirements for serious PM-10 areas and EPA guidance at 59 FR 41998. Further, the plan was to contain the air quality modeling and emissions inventory information necessary to support these attainment, RFP, RACM, and BACM demonstrations and must meet the general SIP requirements discussed above.

Having concluded that the hybrid moderate/serious plans described above would effectuate the intent of the Ninth Circuit's mandate, EPA then turned to the issue of how to define the moderate area requirements applicable to the microscale plan after the moderate area attainment deadline,

December 31, 1994, has passed. The following discussion addresses that issue and the interrelationship of those requirements with the serious area requirements as they apply to that plan.

(a) Attainment Demonstration. EPA believes that because the Maricopa area was reclassified from a moderate to a serious nonattainment area, the moderate area requirements (demonstration of impracticability or attainment by no later than December 31, 1994) have been superseded by the serious area attainment requirement (attainment by no later than December 31, 2001) and are therefore now moot. Having reviewed the CAA's moderate and serious area PM-10 attainment provisions, EPA has concluded that when a moderate PM-10 area has been reclassified after the moderate area attainment deadline has passed and been replaced with a new deadline, the moderate area deadline no longer has any logical, practical or legal significance.

Thus, under this interpretation, there would be no need for the State's microscale plan, to the extent that it is intended to meet the CAA's moderate area requirements, to demonstrate attainment. In other words, such an attainment demonstration would only be required when the State submits in late 1997 the complete serious area plan to comply with the section 189(b)(1) attainment demonstration requirement. EPA believes that its interpretation can be reconciled with the Ober court's directive that EPA require the State to address the moderate area attainment requirements for the 24-hour standard and that such an interpretation is reasonable given the legal and factual context in which that case was decided. EPA's reasoning is explained in detail at 61 FR 54972, 54974-54975 (October 23, 1996). Nevertheless, EPA has chosen to comply with the court's remedies regarding the moderate area attainment requirements.⁸

Having determined that it must require the State to meet the CAA's moderate attainment requirements for the 24-hour standard, EPA has concluded that since the December 31, 1994 deadline has passed and the Maricopa area has been reclassified, the only attainment deadline currently

applicable to the area is the serious area deadline, that is, no later than December 31, 2001. Thus the attainment deadline for both the moderate and serious area components of the State's microscale PM-10 plan would be as expeditiously as practicable but no later than December 31, 2001. Therefore, if the microscale plan demonstrates attainment of the 24-hour standard at each monitor specified in EPA's September 18, 1996 letter by no later than December 31, 2001, it will be deemed to comply with sections 189(a)(1)(B) and (b)(1)(A) of the CAA.

(b) RACM/BACM Demonstration. Sections 172(c)(1) and 189(a)(1)(C) read together require that moderate area PM-10 SIPs include RACM and RACT for existing sources of PM-10. These SIPs were to provide for implementation of RACM/RACT no later than December 10, 1993. Since the moderate area deadline for the implementation of RACM/RACT has passed, EPA has concluded that the RACM/RACT required in the State's microscale plan must be implemented as soon as possible. Delaney v. EPA, 898 F.2d 687, 691 (9th Cir. 1990).

The methodology for determining RACM/RACT is described in detail in the General Preamble. 57 FR at 13540-13541. In summary, EPA suggests starting to define RACM with the list of available control measures for fugitive dust, residential wood combustion, and prescribed burning contained in Appendices C1, C2, and C3 of the General Preamble and adding to this list any additional control measures proposed and documented in public comments. The state can then cull from the list any measures for insignificant emission sources of PM-10 and any measures that are unreasonable for technological or economic reasons. The General Preamble does not define insignificant except to say that it would be unreasonable to apply controls to sources that are negligible ("de minimis") contributors to ambient concentrations. However, EPA's serious area plan guidance does define, for use in BACM determinations, a "significant contributor" source category as one that contributes 5 g/m³ or more of PM-10 to a location of

expected 24-hour exceedances. Addendum at 42011. For purposes of the microscale plan only, EPA is proposing to use this same definition to define significant in determining which source categories require the application of RACM.

For any RACM that are rejected by the state, the plan must provide a reasoned justification for the rejection. Once the final list of RACM is defined, each RACM must be converted into a legally enforceable vehicle such as a rule, permit, or other enforceable document. General Preamble at 13541.

Under section 189(b)(2), for moderate areas that have been reclassified as serious, the state must submit BACM 18 months after reclassification, i.e., December 10, 1997 for the Maricopa area, and must implement those measures four years after reclassification, i.e., by June 10, 2000 for the Maricopa area.

BACM is defined as the "maximum degree of emission reduction of PM-10 and PM-10 precursors from a [significant] source [category] which is determined on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, to be achievable for such sources through application of production processes and available methods, systems, and techniques...." Addendum at 42010. BACM/BACT must be determined and documented consistent with the Addendum (59 FR at 42012-14) and must be applied to each significant area-wide source category and individual stationary source. Addendum at 42010, footnote 33. A "significant" source category is defined as one that contributes 5 g/m³ or more of PM-10 to a location of expected 24-hour violation. Addendum at 42011.

The state must document its selection of BACM by showing what control measures applicable to each significant source category were considered. See Addendum at 42014. BACM should go beyond existing RACM controls and can include expanded use of RACM controls (e.g., paving more miles of unpaved roads). Addendum at 42013. Additionally, BACM should emphasize

prevention of PM-10 emissions where possible over remediation. Addendum at 42013.

For the microscale plan, EPA required that Arizona submit RACM and BACM demonstrations by May 9, 1997 as they relate to exceedances of the 24-hour standard at the five specified monitors. RACM and BACM were to be identified, documented, and realistically evaluated for effectiveness for contributing sources to each modeled exceedance. Marcus letter. Evaluation of RACM/BACM in the microscale plan is limited to controls for sources that are contributing significantly and directly to the localized violations rather than to sources contributing to background PM-10 levels. A full analysis of RACM/BACM for sources that significantly contribute to PM-10 levels in the Maricopa County PM-10 nonattainment area but are not directly implicated in the localized exceedances is to be conducted as part of the regional serious area plan, due December 10, 1997.

(c) RFP/Quantitative Milestones. Both PM-10 moderate and serious area nonattainment SIPs demonstrating attainment must include quantitative milestones to be achieved every three years until the area is designated attainment and must demonstrate RFP toward attainment by the applicable date. CAA section 189(c)(1). EPA has addressed these requirements in several guidance documents. See the General Preamble at 13539, the Addendum at 42015-42017, and the memorandum from Sally Shaver, EPA, to EPA Division Directors, "Criteria for Granting 1-Year Extensions of Moderate PM-10 Nonattainment Area Attainment Dates, Making Attainment Determinations, and Reporting on Quantitative Milestones," November 14, 1994 (Shaver memorandum). Of these guidance documents, the most comprehensive is the Addendum which discusses both the RFP annual incremental reduction requirement and the appropriate interpretation of the milestone requirement as it relates to moderate areas that have been reclassified to serious.

With respect to RFP, EPA determined that SIPs must indicate the annual emission reductions that correspond to the compliance schedules for the

control measures in the plan. EPA then has considerable discretion in reviewing the SIP to determine whether the annual incremental emission reductions to be achieved are reasonable in light of the statutory objective of timely attainment. Addendum at 42015.

With respect to the quantitative milestone requirement, for initial moderate areas, EPA concluded that the SIP should initially address at least two milestones and that the starting point for the first 3-year period would be the SIP submittal due date, i.e. November 15, 1991. EPA further concluded that since the time lag between that date and the December 31, 1994 attainment deadline was de minimis, emission reduction progress made between the submittal date and the December 31, 1994 would satisfy the first milestone. The second milestone to be addressed by these initial moderate area SIPs was November 15, 1997. General Preamble at 131539, Addendum at 42016, and Shaver memorandum. For moderate areas that are reclassified as serious, the third milestone achievement date is November 15, 2000. Addendum at 42016. The quantitative milestones should consist of elements that allow progress to be quantified or measured, e.g., percent compliance with implemented control measures. Addendum at 42016.

EPA will assess whether an area has achieved RFP in conjunction with determining compliance with the quantitative milestone requirement. Thus a state should address compliance with both requirements in its RFP/milestone reports. The contents of these reports is discussed in the General Preamble, its Addendum, and the Shaver memorandum.

Since the Ober court found that Arizona had failed to submit a moderate area SIP addressing the 24-hour PM-10 standard in 1991 and the regional plan addressing both the moderate and serious area requirements for both PM-10 NAAQS is now due on December 10, 1997, EPA believes that it is reasonable to conclude, by applying the de minimis reasoning above, that the November 15, 1997 milestone can be satisfied by the December plan submittal. Therefore, the microscale plan need not address the CAA section

189(c)(1) quantitative milestone requirement and it is not discussed further in this notice.

II. Evaluation of the State's Submittal

The Plan for Attainment of the 24-hour PM-10 Standard - Maricopa County PM-10 Nonattainment Area (May, 1997) (microscale plan) was submitted to EPA by the Arizona Department of Environmental Quality (ADEQ) in draft on March 28, 1997 and in final on May 9, 1997. EPA has found both submittals complete pursuant to CAA section 110(k) and 40 CFR part 51, Appendix V. Letter, David P. Howekamp, EPA, to Russell F. Rhoades, ADEQ, May 23, 1997.⁹

EPA has evaluated the plan for compliance with the applicable statutory, regulatory, and policy requirements described above. This evaluation is summarized here, and the detailed analysis can be found in the technical support document which is located in the docket for this proposed rulemaking.

A. Air Quality Modeling

1. The Microscale Approach

CAA section 189(b)(1)(A)(i) requires serious area plans to include air quality modeling as part of their attainment demonstrations. For the microscale plan, base case air quality modeling was required for exceedances at the (East) Chandler,¹⁰ West Chandler, Gilbert, and Maryvale monitors. For the Salt River monitor, air quality modeling was required for each unique emissions scenario leading to an exceedance. In addition, all modeling inputs had to be fully documented and the air quality modeling protocols must conform to EPA guidance or be approved in advance by EPA. Marcus letter.

Base case air quality modeling attempts to replicate observed PM-10 NAAQS exceedances using historical observations of air quality, meteorology, and emissions. The modeling results indicate what sources are contributing to the exceedances and what level of emissions reductions are

needed to eliminate these exceedances.

The modeling approach used in the microscale plan is significantly different than default approaches in EPA guidelines and approaches used in other areas. The main concept of the approach used in the microscale plan is that if PM-10 exceedances are caused mainly by relatively nearby sources, then an attainment demonstration can be based on modeling over a relatively small (microscale) geographic domain, i.e., over sub-areas of the nonattainment area. The microscale approach is more fully described in Microscale Monitoring and Modeling Protocol for the Maricopa PM-10 Nonattainment Area, Harding Lawson Associates, August 31, 1994.

Normally, attainment demonstrations should address attainment for the entire nonattainment area; however, emission inventory development and modeling for areas with substantial fugitive dust problems, such as the Maricopa area, have proved difficult because of the marked uncertainty and temporal and spatial variability of fugitive dust emissions. Fugitive PM-10 has more localized effects than the other criteria pollutants because it is emitted near ground level and has relatively sharp spatial gradients as dust settles out with distance from the source. These considerations suggest that effort should be focused on intensive inventorying and modeling of small areas and short episodes. The approach in the microscale plan can be viewed as an extension of the microinventory method cited in early EPA guidance on PM-10 (Receptor Model Technical Series, Volume I, Overview of Receptor Model Application to Particulate Source Apportionment, EPA-450-4-81-016a, July 1981, p. 27) but goes a step further in using that emission inventory as input into a dispersion model to enable a more precise apportionment of the various sources' effects.

Nevertheless, sources can have effects farther away than is implied by the term "microscale". The finer component of fugitive PM-10 can settle out relatively slowly, and during high wind conditions, at least some of the larger component can be carried long distances. These effects create a

regional component that is not captured in the emissions of a small area near a monitor. This regional component can be dealt with as part of a regional modeling exercise or as part of a "background" to be added to the microscale results. The latter approach is taken in the microscale plan. The fact that the background levels in the plan are relatively high relative compared to the total concentrations indicates a limitation of the microscale approach. Plan, pp. 24 - 26. On the other hand, since fugitive dust control measures derived from the microscale analysis area to be applied over the entire nonattainment area, the background will likely also be reduced because it too is made up primarily of fugitive dust. Therefore, keeping the background constant between uncontrolled and controlled scenarios, as is done in the microscale plan, makes for a conservative microscale attainment demonstration, partly compensating for shortcomings in the microscale approach.

EPA guidance for ozone and carbon monoxide modeling (e.g., Guideline for the Regulatory Application of the Urban Airshed Model, EPA-450/4-91-013, July 1991) describes the selection of pollution episodes to model; there is no comparable guidance for PM-10, but the reasoning would be the same. Basically, the day(s) chosen should be representative of the meteorological conditions and emissions scenarios that lead to NAAQS exceedances and have an adequate database for the development of model inputs. In addition, a microscale approach must ensure that the particular sites chosen for modeling are worst case or representative of PM-10 exceedances in the area.

2. Evaluation of the Microscale Plan's Air Quality Modeling

While documentation in the plan is sparse in places, enough information is provided to assess the adequacy of the approaches used. The following summarizes EPA's evaluation of the microscale modeling. The complete evaluation can be found in the TSD.

The rationale for the choice of monitoring sites to model with the

microscale approach is given in Appendix A to the plan. Past emission inventory and modeling work for the Maricopa area have identified several fugitive dust source categories as being especially important for PM-10 exceedances including urban lots, highway and other construction activities, agricultural activities, and some industrial sources. Study sites were chosen in areas of high emissions density: South Phoenix for its mix of urban sources;¹¹ Salt River for its proximity to industrial sources; West Chandler for its nearby highway construction; and East Chandler for its mix of urban and agricultural sources. The Gilbert and Maryvale sites were later added because they recorded 24-hour exceedances during 1995. These sites are characterized by nearby agricultural land and by park construction/landscaping, respectively.

Together, all these sites present a representative cross-section of the emission sources in the Maricopa area that are suspected of contributing to PM-10 exceedances.

The microscale study took place throughout 1995. In addition to the EPA's standard AP-42 emission methodologies and some other prior special studies for particular source categories, the microscale study included field surveys, aerial photography, examination of activity logs, and interviews with source operators. This study resulted in a substantially better emissions inventory data than is usually available.

To help define the geographic domains to be included in the final modeling, initial screening modeling was performed to determine the distance beyond which sources have an insignificant impact at the monitors. Concentrations observed at neighborhood scale monitors, and information on the land uses that affect these, were used to develop background concentrations for each portion of the modeling domain. Background concentrations were then added to the results of the EPA-recommended ISCST model to yield total predicted concentrations.

Episodes for modeling were chosen from among exceedance days that

occurred during the 1995 study. Because of the importance to the microscale approach of an intensive emission inventory database, some days had to be discarded for lack of adequate emission source activity data.

The Sunday, April 9, 1995 high wind episode day was chosen for the Gilbert, West Chandler, and Maryvale sites.¹² For the Salt River site, October 16, 1995 was selected since all the relevant sources were in operation, the model validated well, and an October day was desirable since many of the exceedances were in that month. Plan, Appendix A, pp. 7-18 to 7-19. Multiple days could have been used and would have been desirable given the seasonal shifts in the daily times of high concentration noted in the plan. However, these varying concentrations were mainly dependent on wind direction, and the chosen October 16, 1995 day exhibits fairly high values in both morning and evening. Thus, the modeled phenomena are similar enough to the other episodes that this single design day is sufficient for the Salt River site.

Overall, the episodes modeled are representative of the conditions under which exceedances of the 24-hour PM-10 NAAQS occur. Model performance was generally good, especially for the Salt River site, and well within what can be expected from the type of model used, a Gaussian dispersion model.

The microscale plan's approach for demonstrating attainment within each sub-area or modeling domain was proportional rollback. The basic assumption in proportional rollback is that a given percentage reduction in emissions yields the same percentage reduction in concentration at the receptor. Every attainment demonstration for a chemically-inert pollutant (that is, a pollutant that does not react in the atmosphere) such as primary PM-10 is implicitly based on proportional rollback, so the plan's approach is acceptable.

Air quality modeling should evaluate the effectiveness of controls throughout the entire modeling domain. A control strategy sufficient for

attainment at the monitor or at the maximum modeled receptor might not be sufficient at other receptor points within the domain where source contributions could be different because of the varying distances between the receptors and the sources. For the microscale plan, this variation is probably not important for the Maryvale or Salt River sub-areas, where a single source category at each site is so dominant, but could be important for the Gilbert and West Chandler sub-areas with their more equal mix of sources.¹³

As the sub-areas are representative of the sources and conditions that lead to exceedances, the air quality modeling in the microscale plan is adequate for demonstrating attainment of the 24-hour PM-10 NAAQS for the Maryvale and Salt River sites within the context of the microscale approach.

B. Evaluation of RACM/BACM

1. RACM/BACM Analysis

(a) Maryvale Site. The Maryvale PM-10 monitoring site is located next to the Desert West Park which was under construction in early 1995. Plan, Appendix A, p. 4-2. The air quality modeling evaluation of the Sunday, April 9, 1995 exceedance at the monitor showed that windblown fugitive dust, all from the area cleared for the park (that is, a disturbed cleared area), was the single largest contributor to the exceedance. Plan, p. 18.

The microscale plan includes a list of potential control measures for the disturbed cleared area category including wind fences, chemical stabilizers, watering to maintain adequate soil moisture, and water to maintain a crust. Plan, p. 22. This source category is also subject to MCESD's Rule 310, Open Fugitive Dust Sources, which requires the application of RACM to open sources of fugitive dust. RACM is defined in the Rule 310 (section 221) and is detailed on the rule's dust control plan checklist and handbook "A Guide for Reducing Air Pollution from Construction." See Plan, Appendix E, Letter, Joy Bell, MCESD, to Joe Gibbs, ADEQ, May 6, 1997 (Bell

letter).¹⁴ These measures include EPA's suggested RACM for this source category.¹⁵ See General Preamble, Appendix C1.

The microscale plan also identifies BACM enhancements, including revising the dust control plan checklist to make permit holders aware of the importance of preventing wind-blown dust even when areas are inactive and the requirement to stabilize disturbed surfaces at all times, and revising the handbook to encourage them to plan their projects to minimize the amount of land disturbed at one time. Plan, p 27. These types of enhancements meet EPA's guidance for BACM by going beyond existing RACM controls, expanding the use of RACM controls, and emphasizing prevention over remediation.

(b) Salt River Site. The Salt River monitor is located on the grounds of the City of Phoenix's Salt River Service Center Yard. The site is surrounded by a number of industrial operations (including pre-cast concrete manufacturing and sand and gravel operations), landfills (the 19th Avenue Landfill superfund site and the 27th Avenue Landfill), and other fugitive dust sources such as unpaved parking lots and roads. Plan, Appendix A, pp. 6-3 and 6-4. The modeling showed that fugitive dust from earth moving activities at 19th Avenue Landfill was the single largest contributor to the modeled October 16, 1995 exceedance and was the result of not watering to the depth of the cut during earth moving operations. Plan, pp. 17 and 23. Fugitive dust from unpaved parking lots, industrial haul roads and other unpaved roads also contributed significantly to the exceedance. Plan, p. 17. See also footnote 15 of this notice.

All these significant source categories are subject to the RACM requirements in Rule 310. The microscale plan also includes a list of controls for earth moving and unpaved parking lots,¹⁶ many of which duplicate RACM required by Rule 310. Plan, p. 21. These measures include EPA's suggested RACM for these source categories. General Preamble, Appendix C1.

The microscale plan also identifies an enhancement to RACM for earth

moving operations. This enhancement requires watering to the depth of the cut or other equivalent technique. Plan, p. 23. This type of enhancement meets EPA's guidance for BACM by going beyond existing RACM controls, expanding the use of RACM controls, and emphasizing prevention over remediation. The microscale plan does not explicitly identify BACM for unpaved parking lots, industrial haul roads, and unpaved roads although clarifications to Rule 310 to make permit holders aware of the importance of preventing wind-blown dust even when areas are inactive and of the requirement to stabilize disturbed surfaces at all times should improve control on these types of sources when they are located at permitted facilities.

(c) Gilbert Site. The Gilbert monitoring site is located on the grounds of the City of Gilbert's wastewater treatment plant and has agriculture fields and aprons to its north, paved and unpaved parking to the north and west, and a city park to the south. Plan, Appendix A, pp. 4-5. The modeling showed that windblown fugitive dust from agriculture aprons and unpaved parking lots was the largest contributor to the Sunday, April 9, 1995 exceedance. Plan, p. 18. Fugitive dust from disturbed cleared areas was also a significant contributor to the exceedance. Plan, p. 18. See also footnote 15 of this notice. All these source categories are subject to the RACM requirements in Rule 310.¹⁷ The RACM in Rule 310 include EPA's suggested RACM for these source category. General Preamble, Appendix C1.

The BACM enhancement identified for these categories are clarifications to the dust control requirements in Rule 310 and improved enforcement of Rule 310. Plan, p. 23. These types of enhancements meet EPA's guidance for BACM by going beyond existing RACM controls, expanding the use of RACM controls, and emphasizing prevention over remediation. The microscale plan also includes development of a partnering process with the U.S. Natural Resources Conservation Service (NRCS) to address fugitive dust from agri-

cultural sources (Plan, p. 36) and with the local jurisdictions in Maricopa County to address unpaved parking (Plan, p 35); however, no potential controls are identified for these sources, nor is there any analysis as to why controls are not available.

(d) West Chandler Site. The West Chandler monitoring site is located near the corner of Price and Frye Roads and is bordered on the west by agriculture fields (which were idle on April 9, 1995) and the right of way for Price Road/Freeway which was under construction in early 1995. Plan, Appendix A, p. 4-4. The modeling showed that windblown fugitive dust, mainly from agricultural fields and road construction (disturbed cleared area), was the largest contributor to the April 9, 1995 exceedance. Fugitive dust from vacant lands and agricultural aprons was also a significant contributor. Plan, p. 19. See also footnote 15 of this notice. All these source categories are subject to the RACM requirements in Rule 310 (see footnote 17 of this notice). These measures include EPA's suggested RACM for all these source category except agricultural fields. General Preamble, Appendix C1.

The BACM enhancements to RACM for these categories are similar to those recommended for Gilbert and Maryvale. Plan, p. 28. These types of enhancements meet EPA's guidance for BACM by going beyond existing RACM controls, expanding the use of RACM controls, and emphasizing prevention over remediation.

(e) PM-10 Precursors. CAA section 189(e) states that the control requirements applicable under PM-10 plans for major stationary sources of PM-10 are also applicable to major stationary sources of PM-10 precursors (such as NOx and SOx sources) except where EPA determines that such sources do not contribute significantly to PM-10 levels. General Preamble at 13541-13542. "Significant" is not defined in the General Preamble, rather for moderate areas, the determination was to be made on a case-by-case basis. General Preamble at 13539. For serious areas, a "significant"

source category is defined as one that contributes 5 g/m³ or more of PM-10 to a location of expected 24-hour violation. Addendum at 42001. For this rulemaking only, EPA is proposing to apply the serious area definition to both the RACT and BACT necessity determinations.

It is clear from the modeling that primary-emitted PM-10 (i.e., fugitive dust) is the only significant contributor to the 24-hour PM-10 exceedances at the four modeled sites. Based on this evidence, EPA is proposing to determine under section 189(e) that sources of PM-10 precursors do not contribute significantly to PM-10 levels which exceed the 24-hour standard at the Gilbert, West Chandler, Maryvale, and Salt River monitors and therefore no RACM/BACM controls are necessary for these sources. This proposed finding applies only to the microscale plan and will need to be evaluated again for the full regional plan.

2. RACM/BACM Implementation

(a) MCESD Rules and Commitments. The primary conclusion of the air quality modeling is that the 24-hour PM-10 exceedances at the four evaluated sites are related solely to fugitive dust. The eight source categories of fugitive dust that were identified as significant (that is, had an impact of 5 g/m³ or more) at one or more monitoring sites are regulated wholly or in part by MCESD's Rule 310 (Open Sources of Fugitive Dust). See footnote 17 of this notice. These significant source categories are disturbed cleared area, earth moving, unpaved parking lots, unpaved roads, industrial haul roads, vacant land, agricultural fields, and agricultural aprons.

(i) Rule 310. Rule 310 was adopted by Maricopa County in 1988, substantially revised in 1993, and revised again in 1994. The rule was initially submitted to EPA in 1994 as part of the moderate area PM-10 plan for the Maricopa area, and EPA approved the rule on April 10, 1995 (60 FR 18010) in conjunction with its approval of the overall moderate area plan. This plan's approval was subsequently vacated by the Ninth Circuit in

Ober. Although the court's opinion did not address the SIP approvability of Rule 310, its disposition had the incidental effect of also vacating EPA's approval of Rule 310.

In the 1994 proposed approval of the moderate area plan, EPA found that Rule 310 met the CAA's enforceability requirements and proposed to approve the rule except for a "director's discretion" provision.¹⁸ 59 FR 38402 (July 28, 1994). Several comments questioning the enforceability of Rule 310 were received on the proposal but none changed EPA's conclusion that the rule was enforceable. 60 FR 18018. Neither the rule nor EPA's finding that the rule meets the SIP enforceability criteria has changed since that time. Therefore EPA is reaffirming its previous finding that Rule 310 meets the requirements of CAA sections 110(a)(2)(A) and 172(c)(6) for enforceable emission limitations. As a result, EPA is proposing to reapprove Rule 310 as an element of the Arizona SIP for the Maricopa PM-10 nonattainment area.

Implementation of Rule 310. Rule 310 requires the application of reasonably available control measures to open sources of fugitive dust. RACM is defined in the rule (section 221) and is detailed on the dust control plan checklist and in the Rule 310 handbook "A Guide for Reducing Air Pollution from Construction." The microscale plan includes revisions to the checklist and handbook to reflect BACM. Plan, Appendix E, Bell letter. These revisions include making clear that the dust control plan must be implemented throughout the life of the project until all roads and disturbed areas are stabilized and that watering is required to the depth of an earth moving cut.

Rule 310 also requires that an earth moving permit be obtained prior to engaging in any commercial, industrial or institutional earth moving or dust generating operation that disturbs a total surface area of 0.10 acres or more.¹⁹ Rule 310, section 302 (dust generating operations - permits required). A dust control plan must be submitted with the permit applica-

tion. Rule 310, section 303 (control plans). Earth moving permits must be renewed every year. Rule 200 (Permit Requirements), section 305.4. No permit is required for other fugitive dust sources regulated by Rule 310 such as unpaved parking lots, unpaved roads, vacant lots, agricultural fields, and agricultural aprons.

To help permit applicants develop dust control plans, MCESD has developed a general dust control plan or checklist that lists RACM by category (e.g., earth moving, disturbed surface areas). Permit applicants can simply check off the RACM they will use but must check off at least one measure per category. Alternatively, applicants may craft their own dust control plans provided they meet the requirements of Rule 310. See Plan, p. 34 (revised dust control plan checklist).

Review of earth moving permit applications and dust control plans as well as the inspection of permitted earth moving sites is done primarily by the MCESD's Earthmoving/Burn Permit Coordinator.²⁰ Inspections are conducted for all projects greater than 10 acres in size and smaller operations are inspected based on several factors including the compliance history of the contractor/developer or complaints. Some inspections are performed by the Department's regional offices when time allows. Plan, Appendix B, p. 2-5. MCESD inspectors also note earth moving operations when they are out in the field and stop to check if the required permit is posted. Plan, Appendix G, p. 18. Historically, stationary sources have not been inspected for Rule 310 violations even when they have fugitive dust sources subject to the rule.²¹ Plan, Appendix B, p. 2-5.

MCESD only inspects sources that do not require permits (such as vacant land and unpaved parking lots) on a complaint basis and has no proactive inspection or compliance assurance program for these types of sources. Plan, p. 12.

The microscale plan identifies a number of recommended changes to improve implementation of Rule 310. MCESD has or will undertake a number

of internal program modifications to implement these recommendations and will lead a regional program to foster interagency cooperation to reduce particulate pollution.

Some of the internal program modifications the Department has already made are revising a number of documents that support implementation of Rule 310 including the dust control plan, the Rule 310 handbook, the guideline for earth moving inspection checklist, and the standard operating procedures (SOP) for earth moving permit application processing and site inspection. In addition, MCESD is revising the SOP for air pollution inspection procedures.²² Plan, Appendix E, Bell letter. Other changes include updating staff training on Rule 310 (target completion date: May 31, 1997), initiating a weekend inspection program for Rule 310 sources (target date: May, 1997), and linking the earth moving permit, complaint, and enforcement databases to improve access to information on permitted sources (target completion date: February, 1998). Plan, Appendix E, Bell letter. A complete description of MCESD's commitments can be found in the Plan, Appendix E, Bell letter.

Regional Program. MCESD has also committed to a regional program to foster interagency cooperation including designating a MCESD staff person as a coordinator, holding Rule 310 workshops for cities and contractors, creating material on Rule 310 for distributing to City/County staff and contractors, continuing to conduct workshops in 1997 on studying and improving the current dust control program, expanding public awareness programs for particulate pollution, and publicizing MCESD's public complaint line number. The regional program will be fully implemented in 1997. A complete description of MCESD's commitments can be found in the Plan, Appendix E, Bell letter.

In total, MCESD's commitments clearly identify the actions required and the deadlines for those actions and thus constitute enforceable control measures under CAA sections 110(a)(2)(A) and 172(c)(6). EPA, therefore,

proposes to approve them as elements of the Arizona SIP.

Resources for Rule 310 Implementation. MCESD will continue to implement Rule 310 through a program of reviewing and evaluating dust control plans, inspection of sources with earth moving permits, and responding to complaints. The Earthmoving/Burn Permit Coordinator has primary responsibility for reviewing dust control plans and inspections and is aided in inspections by four dedicated stationary source inspectors in the main office. In addition, MCESD has recently hired a public involvement coordinator and an assistant to the Earthmoving/Burn Permit Coordinator. Finally, the Department's Small Business Assistance Program also assists in implementing Rule 310 through outreach and compliance assistance. Plan, Appendix E, Bell letter.

Complaints are handled by the appropriate regional office. Each regional office has one supervising inspector and two staff inspectors. The regional offices also do earth moving inspections as time allows during the summer months. These non-complaint inspections are limit to permitted sites from 5 to 10 acres. Plan, Appendix B, pp. 2-4 and 2-5.

In all, there are 1.75 full time equivalent (FTE) positions working directly on Rule 310 implementation, plus the Department has 19 inspectors, aides, engineers, and supervisors available to perform field observations and respond to complaints. Plan, Appendix E, Bell letter. This level of staffing (when combined with the support from the rest of the Department's inspection staff) is sufficient to ensure implementation of Rule 310 at the level assumed and committed to in the microscale plan, that is, a reasonable level of implementation on permitted sources but minimal implementation on nonpermitted sources.²³

(ii) Rules 311 and 316. Individual point sources (e.g., several concrete manufacturers and sand and gravel operations) whose emissions are accounted for within several of the source categories at the Salt River site are also covered by MCESD's Rule 311 (Particulate Matter from Process

Industries) and Rule 316 (Nonmetallic Mineral Mining and Processing). These rules were approved by EPA as RACT for PM-10 sources as part of the approval of the moderate area plan. 60 FR 18009. While not at issue in the litigation regarding that plan's approval, EPA's approval of these rules was also incidently vacated by the Ober decision. EPA, therefore, will be restoring its approval of these rules in its final action on this proposal.

(b) City Resolutions. The microscale plan includes resolutions adopted by the Cities of Phoenix, Tempe, Chandler, Glendale, Scottsdale, and Mesa and the Town of Gilbert (collectively, city or the cities). Plan, Appendix E, "Resolutions Adopted by Various Cities and Towns within Maricopa County" (resolutions). The resolutions commit each city to participate in a regional program led by MCESD to foster interagency cooperation to reduce particulate pollution. This participation requires the city to 1) designate a staff person to coordinate the city's participation in the regional dust control program, 2) participate in workshops (to be held by MCESD) to study current dust control programs and to evaluate options for additional efforts, 3) distribute MCESD information on dust control to grading and certain building permit applicants, 4) ensure appropriate city personnel receive training on Rule 310 requirements, and 5) distribute information on particulate pollution to the public. The resolutions do not commit the cities to adopt any additional dust control requirements.

The cities will undertake these actions using current staffing and funding. Plan, p. 35 and Appendix E, resolutions. Because these actions are easily integrated into on-going city activities, these staffing and funding levels are adequate to implement the commitments. MCESD has complemented the cities' efforts by committing to designate a staff person as the regional program coordinator, to hold workshops, develop material for distribution, and provide training on Rule 310. Plan, Appendix E, Bell letter.

The commitment to address fugitive dust is an important additional step by the cities to help solve Maricopa's PM-10 problem in the long term.²⁴ The air quality modeling clearly shows that fugitive dust from nonpermitted sources such as vacant lands, unpaved parking lots, and unpaved roads are significant contributors to exceedances. Given the size of the Maricopa PM-10 nonattainment area and MCESD's limited resources, the cities and towns will need to take a more active role in reducing fugitive dust from these nonpermitted sources.

The cities' resolutions clearly identify the actions required and the deadlines for those actions and thus constitute enforceable commitments. As such, EPA proposes to approve them into the Arizona SIP for the Maricopa PM-10 nonattainment area.

(c) Agricultural Sources. As discussed previously, the air quality modeling demonstrated that control of fugitive dust from agricultural fields and field aprons is necessary for attainment of the 24-hour PM-10 standard at the Gilbert and West Chandler sites. Rule 310, while nominally applicable to agricultural sources, is not in general enforced against them. Plan, p. 31. See also footnote 17 of this notice. The microscale plan contains no controls for these source categories but does include an agreement by ADEQ, MCESD, and the federal Natural Resources Conservation Services (NRCS) to develop a protocol to address fugitive dust on agricultural land and refine roles, objectives and schedule. Plan, p. 36 and Appendix E, "Agreement of ADEQ, U.S. NRCS, and MCESD" (NRCS agreement).

EPA appreciates the agreement of the three agencies to develop a protocol to address fugitive dust from agricultural sources and fully supports this effort. However, given the impact of these sources on PM-10 levels in the Maricopa area, it is important that the protocol and the work that follows it are focused on getting appropriate RACM and BACM measures in place by the applicable deadlines.

(d) Proposed Finding on RACM/BACM Implementation. There are eight

source categories of fugitive dust identified in the microscale plan as significant at one or more monitoring sites: disturbed cleared area, earth moving, unpaved parking lots, unpaved roads, industrial haul roads, vacant land, agricultural field aprons, and agricultural fields.²⁵ Plan, pp. 17-19. These sources divide into three categories. In the first category are sources subject to permitting: disturbed cleared areas, earth moving, and industrial haul roads.²⁶ In the second category are sources that are not subject to permitting (i.e., nonpermitted sources): unpaved parking lots, unpaved roads, and vacant land. Finally, in the third category are the two sources that are essentially unregulated by Rule 310: agricultural fields and agricultural aprons.

As discussed above, MCESD has an adequate implementation strategy for dealing with permitted sources including review and approval of dust control plans and proactive inspections and has sufficient resources to carry out that strategy. The Department adopted Rule 310 in 1994 and is already implementing and improving the program. Plan, pp. 7-13 and 32-33. The BACM improvements to the Rule 310 program and the other commitments in the microscale plan will all be fully implemented within one year of submittal of the final plan, with many being implemented within one or two months. Plan, pp. 32-33. EPA, therefore, is proposing to find that the microscale plan assures implementation of RACM as soon as possible and BACM by December 10, 2000 as required by CAA sections 189(a)(1)(C) and 189(b)(1)(B) for the significant source categories of: disturbed cleared areas, earth moving, and industrial haul roads. EPA is proposing to approve the RACM/BACM demonstrations for these source categories.

For nonpermitted sources, MCESD seeks compliance with Rule 310 only when complaints are received. MCESD has adopted RACM controls for these sources in Rule 310 and is committed along with the seven cities to evaluate options to reduce particulate from vacant lands, unpaved roads, and unpaved parking areas. Plan, Appendix E, Bell Letter. The microscale

plan, however, contains no commitments to assure RACM/BACM will be implemented for these sources at a meaningful level nor any analysis as to why RACM or BACM implementation on these sources is infeasible. As a result, the microscale plan does not claim any credit in the attainment demonstrations for these nonpermitted sources. Plan, pp. 37-40. EPA, therefore, is proposing to find that the microscale plan does not assure implementation of either RACM or BACM as required by CAA sections 189(a)(1)(C) and 189(b)(1)(B) and to disapprove the RACM/BACM demonstrations for the unpaved parking lots, unpaved roads, and vacant land source categories.

As discussed previously, there are currently no effective controls on agricultural sources in the Maricopa area. The microscale plan provides for the development of a partnership to identify appropriate controls but does not contain any actual controls nor is there any analysis as to why RACM/BACM implementation on these sources is infeasible. EPA is, therefore, proposing to find that the microscale plan does not assure implementation of either RACM or BACM as required by CAA sections 189(a)(1)(C) and 189(b)(1)(B) and to disapprove the RACM/BACM demonstrations for these sources.

These proposed findings are applicable only to the microscale plan and thus, if finalized, will not constitute EPA's final decision as to the State's full compliance with the requirements of CAA sections 189(a)(1)(C) and 189(b)(1)(B) for RACM and BACM for the eight source categories. The State will need to re-evaluate appropriate RACM and BACM for these sources in the full regional plan.

C. Evaluation of Attainment and RFP Demonstrations

1. Salt River Site

As discussed above, attainment of the 24-hour PM-10 standard at the Salt River site requires additional controls for earth moving activities, specifically watering to the depth of the cut or other equivalent techniques, in addition to the existing control provided by Rule 310. Plan, p.

37. These earth moving activities are subject to permitting under Rule 310. MCESD will revise its dust control plan checklist to clarify the earth moving requirement in May, 1997, and will begin including the requirement in all new earth moving permits and permit renewals by June 1, 1997. Plan, Appendix E, Bell letter. Permit renewals are required annually, thus full implementation will occur within one year of the submittal of the final plan. Plan, p. 38.

Attainment is predicted based on acceptable air quality modeling. EPA will be restoring its approval of Rules 311 and 316. EPA is also proposing to reapprove Rule 310 and to approve the additional controls assumed in the attainment demonstration. Finally, EPA is also proposing to find that MCESD has adequate resources, personnel, and authority to assure implementation of the measures required for attainment at this site. EPA is, therefore, proposing to approve the attainment demonstration at the Salt River monitor pursuant to CAA sections 189(a)(1)(B) and 189(b)(1)(A).

Reasonable further progress is defined in CAA section 171(1) as "such annual incremental reductions in emissions of the relevant air pollutant as...may be reasonably be required by the Administrator for the purposes of ensuring attainment of the applicable [NAAQS]." Because attainment will occur within one year of final plan submittal, the RFP and attainment demonstrations at this monitor are the same; that is the annual increment needed for progress toward attainment is the same as the emission reduction needed for attainment. Therefore, EPA is proposing to approve the RFP demonstration at this monitor pursuant to CAA section 189(c).

2. The Maryvale Site

Attainment of the 24-hour PM-10 standard at the Maryvale site requires stabilization of disturbed cleared areas at all times. Plan, p. 38. Disturbed cleared areas is a source category subject to permitting under Rule 310. MCESD has revised its dust control plan checklist for Rule 310 to clarify the requirement to stabilize all disturbed areas at all times and

will begin including the requirement in all new earth moving permits and permit renewals by June 1, 1997. Plan, Appendix E, Bell letter. Permit renewals are required annually, thus full implementation and attainment will occur within one year of the submittal of the final plan. Plan, p. 38.

Attainment is predicted based on acceptable air quality modeling. EPA is proposing to reapprove Rule 310 and to approve the additional controls assumed in the attainment demonstration. Finally, EPA is proposing to find that MCESD has adequate resources, personnel, and authority to assure implementation of the measures to the extent required for attainment at this site. EPA is, therefore, proposing to approve the attainment demonstration at the Maryvale monitor pursuant to CAA sections 189(a)(1)(B) and 189(b)(1)(A).

Because attainment will occur within one year of final plan submittal, the RFP and attainment demonstrations at this monitor are essentially the same; that is the annual increment needed for progress toward attainment is the same as the emission reductions needed for attainment. Therefore, EPA is proposing to approve the RFP demonstration at this monitor pursuant to CAA section 189(c).

3. The Gilbert Site

The microscale plan does not demonstrate attainment or RFP at the Gilbert site because of uncontrolled fugitive dust emissions from agricultural aprons and unpaved parking lots. Plan, p. 38. As noted before, the microscale plan does include strategies to evaluate controls on these sources but, at this time, does not assure implementation of controls for them. EPA is, therefore, proposing to disapprove the attainment and RFP demonstrations for this site.

4. The West Chandler Site

The microscale plan does not demonstrate attainment or RFP for the West Chandler site because of uncontrolled fugitive dust emissions from

agricultural fields and aprons and vacant land. Plan, p. 39. As noted before, the microscale plan does include strategies to evaluate controls on these sources but, at this time, does not assure implementation of controls for them. EPA is, therefore, proposing to disapprove the attainment and RFP demonstrations for this site.

These proposed approvals and disapprovals are applicable only to the microscale plan and thus, if finalized, will not constitute EPA's final decision as to the State's full compliance with the requirements of CAA sections 189(a)(1)(B), 189(b)(1)(A) and 189(c)(1) for attainment and RFP demonstrations at the Salt River, Maryvale, Gilbert and West Chandler monitoring sites. Because regional factors may influence attainment at these sites, the State will need to re-evaluate modeling at all four sites as part of the full regional plan.

D. General SIP Requirements

1. Section 110(1) Finding

CAA section 110(1) states that the "Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress ... or any other applicable requirement of this Act."

Pursuant to section 110(1) of the Act, EPA proposes to find that its proposed partial approval of the microscale plan does not interfere with any other requirements of the Act applicable to the Maricopa PM-10 nonattainment area including the requirements for attainment and RFP. In fact, the control measures and commitments in the plan are essential elements in the demonstrations of attainment and RFP for the area for the 24-hour PM-10 NAAQS and partially meet the statutory requirement for the adoption and implementation of RACM and BACM.

2. Adequate Personnel, Funding, and Authority

Section 110(a)(2)(E)(i) of the Clean Air Act requires that implementation plans provide necessary assurances that the state (or the general

purpose local government) will have adequate personnel, funding and authority under state law. Requirements for legal authority are further defined in 40 CFR part 51, subpart L (51.230-232) and for resources in 40 CFR § 51.280. States and responsible local agencies must demonstrate that they have the legal authority to adopt and enforce provisions of the SIP and to obtain information necessary to determine compliance. SIPs must also describe the resources that are available or will be available to the State and local agencies to carry out the plan, both at the time of submittal and during the 5-year period following submittal.

Adequate Personnel and Funding. For Rule 310, the microscale plan reflects MCESD's current bifurcated implementation strategy of proactive compliance and enforcement on permitted sources and reactive enforcement on nonpermitted sources. This implementation strategy is assumed in the attainment demonstrations in which emission reductions are assumed only from permitted sources and not from nonpermitted sources. Plan, pp. 37-40. MCESD's available resources (both personnel and funding) for carrying out this bifurcated strategy for Rule 310 and its other commitments are discussed above and are adequate. MCESD expects to maintain this level of resource commitment over the next five years of plan implementation. Plan, p. 33.

The cities' resources for implementing their respective commitments are also discussed above and are adequate. Each agency is expected to maintain this level of resource commitment over the next five years of plan implementation. Plan, pp. 35 and 36.

Adequate Legal Authority. The primary implementing agency of the controls in the microscale plan is the County of Maricopa through its Environmental Services Department. A.R.S. 49-479 provides that the board of supervisors "shall adopt such rules as it determines are necessary and feasible to control release into the atmosphere of air contaminants...." A.R.S. 49-476.01 provides the County control officer the authority to re-

quire sources to monitor, sample, or otherwise quantify their emissions and the board of supervisors the authority to adopt rules for source monitoring, sampling, etc. These sections provide the County and MCESD with sufficient authority under State law to adopt and enforce the proposed control measures and to obtain the information necessary to determine compliance.

Legal authority for the cities to adopt and implement their resolutions are described in the microscale plan on pp. 35-36 and appears to be adequate.

These proposed findings regarding adequate authority and resources are applicable only to the control strategy and commitments as submitted in the microscale plan.

3. Description of Enforcement Methods

Section 110(a)(2)(C) requires SIPs to include a program to provide for the enforcement of SIP measures. The implementing regulation for this section is found at 40 CFR 51.111(a) and requires control strategies to include a description of enforcement methods including 1) procedures for monitoring compliance with each of the selected control measures, 2) procedures for handling violations, and 3) the designation of the agency responsible for enforcement.

Procedures for monitoring compliance (i.e., the inspection strategy) with Rule 310 are discussed in the section on MCESD commitments above. MCESD is the designated agency for enforcing Rule 310. See legal authority section above.

MCESD has developed an Air Enforcement Policy (April 4, 1997). A summary of this strategy can be found in the microscale plan, Appendix E, Bell letter. Currently, the Department issues Notices of Violations (NOVs) whenever violations of rules are observed (Plan, p. 12) and will continue to do so. Orders of abatement will be issued after NOVs when compliance is not attainable within a reasonable time frame. Additional enforcement actions may be initiated based on several factors including actual or sig-

nificant potential harm or willful non-compliance. The additional actions include filing criminal or civil complaints. Appropriate monetary penalties will be sought for criminal or civil complaints and the Department encourages Environmental Community Action Projects as part of settlements. Plan, Appendix E, Bell letter.

EPA has also encouraged MCESD to take more enforcement actions with monetary penalties in order to make clear to the regulated community that compliance with Rule 310 should be a priority and to develop a system for tracking the number of NOVs and monetary penalties. See letter, Frances Wicher, EPA, to Joe Gibbs, ADEQ, April 30, 1997 (found in the Plan, Appendix D). In all, the Department's Air Enforcement Policy is adequate to meet the requirements of 40 CFR § 51.111(a) and CAA section 110(a)(2)(C).

III. Summary of Proposed Action

A. Proposed Approvals and Disapprovals

For the reasons discussed above, EPA is proposing to approve:

(1) under sections 172(c)(1), 189(a)(1)(C) and 189(b)(1)(B), the provisions for implementing RACM and BACM for the significant source categories of disturbed cleared areas, earth moving, and industrial haul roads; and

(2) under sections 189(a)(1)(B), 189(b)(1)(A), and 189(c), the attainment and RFP demonstrations for the Maryvale and Salt River sites.

For the reasons discussed above, EPA is proposing to disapprove:

(1) under sections 172(c)(1), 189(a)(1)(C) and 189(b)(1)(B), the provisions for implementing RACM and BACM for the significant source categories of agricultural fields, agricultural aprons, vacant lands, unpaved parking lots, and unpaved roads; and

(2) under sections 189(a)(1)(B), 189(b)(1)(A), and 189(c)(1), the attainment and RFP demonstrations at the West Chandler and Gilbert sites.

Finally, EPA is proposing to find that the microscale plan 1) provides the necessary assurances that the state and local agencies have adequate

personnel, funding and authority under state law to carry out the submitted microscale plan, and 2) includes an adequate enforcement program, as required by CAA sections 110(a)(2)(E)(i) and 110(a)(2)(C).

B. Consequences of the Proposed Disapprovals

As noted before, EPA required submittal of a microscale plan meeting both the moderate and serious area requirements for the 24-hour PM-10 standard by May 9, 1997 and a full regional plan meeting those requirements for both the 24-hour and annual standards by December 10, 1997. The microscale and regional plans taken together would satisfy both the moderate area requirements for the 24-hour standard mandated by the Ninth Circuit in Ober and the serious area planning requirements for both standards. The subject of this proposed action is the microscale plan only; the full regional plan is not due until late 1997. It is, therefore, premature to determine if the microscale plan, in and of itself, fully complies with the Clean Air Act requirements for moderate and serious PM-10 nonattainment areas. Such a determination is not possible until the regional plan is submitted and reviewed.

Because the microscale plan taken alone is not intended to fully comply with the RACM/BACM implementation, reasonable further progress and attainment demonstration requirements of the Clean Air Act, final disapprovals of portions of the microscale plan would not trigger sanctions under CAA section 179(a). CAA section 179(a) requires the imposition of one of the sanctions in section 179(b) within 18 months of a disapproval if EPA "disapproves a [State] submission...based on the submission's failure to meet one or more of the elements required by [the CAA]". Because the purpose of the microscale plan was to, in effect, provide a down payment towards meeting certain requirements of the Act, EPA is not, at this time, proposing to find that the State has failed to meet any of the applicable elements required by the CAA as contemplated by section 179(a).

EPA is subject to the terms of a consent decree approved by the U.S.

District Court for the District of Arizona on March 25, 1997. Ober v. Browner, No. CIV 94-1318 PHX PGR. The consent decree obligates EPA to propose a federal implementation plan (FIP) for PM-10 in the Maricopa nonattainment area by March 20, 1998 and finalize that FIP by July 18, 1998²⁷ if the Agency disapproves all or part of the microscale plan. Therefore, if EPA finalizes the proposed disapprovals described above, EPA will have an obligation to promulgate a regional moderate area PM-10 FIP that addresses the statutory requirements for attainment, RACM and RFP. Under the consent decree, the scope of this FIP obligation is reduced to the extent that EPA approves by July 18, 1998 SIP provisions meeting the statutory requirements for RACM, RFP and attainment for moderate PM-10 nonattainment areas.

EPA believes, as is expressed in CAA section 101(a), that air pollution control is primarily the responsibility of states and local jurisdictions. Therefore, the Agency will work with the State of Arizona and the local agencies and jurisdictions responsible for PM-10 planning and control in Maricopa County to develop SIP provisions that can reduce the scope of, or eliminate, any potential FIP. Considerable work is already underway or planned in the area to address the PM-10 problem. As noted before, the full serious area regional PM-10 plan is due December 10, 1997. In addition, the microscale plan contains two initiatives, MCESD's regional program to address controls on nonpermitted sources and the ADEQ/MCESD/NRCS agreement to address fugitive dust from agricultural sources, that are targeted at significant but currently uncontrolled sources of PM-10.

IV. Administrative Requirements

A. Executive Order 12866

This action has been classified as a Table 3 action for signature by the Regional Administrator under the procedures published in the Federal Register on January 19, 1989 (54 FR 2214-2225), as revised by a July 10, 1995 memorandum from Mary Nichols, Assistant Administrator for Air and

Radiation. The Office of Management and Budget (OMB) has exempted this regulatory action from E.O. 12866 review.

B. Regulatory Flexibility Act

Under the Regulatory Flexibility Act, 5 U.S.C. 600 et seq., EPA must prepare a regulatory flexibility analysis assessing the impact of any proposed or final rule on small entities. 5 U.S.C. 603 and 604. Alternatively, EPA may certify that the rule will not have a significant impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and government entities with jurisdiction over populations of less than 50,000.

SIP approvals under sections 110 and 301, and subchapter I, part D of the CAA do not create any new requirements but simply act on requirements that the State is already imposing. Therefore, because the federal SIP approval does not impose any new requirements, I certify that it does not have a significant impact on any small entities affected. Moreover, due to the nature of the Federal-State relationship under the CAA, preparation of a flexibility analysis would constitute Federal inquiry into the economic reasonableness of state action. The Clean Air Act forbids EPA to base its action concerning SIPs on such grounds. Union Electric Co. v. U.S. EPA, 427 U.S. 246, 255-66 (1976); 42 U.S.C. 7410(a)(2).

C. Unfunded Mandates

Under Section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to private sector, of \$100 million or more. Under Section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small govern-

ments that may be significantly or uniquely impacted by the rule.

EPA has determined that the approval/disapproval action proposed does not include a federal mandate that may result in estimated costs of \$100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector. This federal action approves pre-existing requirements under State or local law, and imposes no new federal requirements. Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Particulate matter, Incorporation by reference.

AUTHORITY: 42 U.S.C. 7401

May 29, 1997

Dated

/signed/

Felicia Marcus
Regional Administrator

BILLING CODE 6560-50-P

¹ There are two PM-10 NAAQS, a 24-hour standard and an annual standard. 40 CFR § 50.6.

² See "State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990," 57 FR 13498 (April 16, 1992) and 57 FR 18070 (April 28, 1992).

³ As will be seen below, the moderate area PM-10 plan for the Maricopa area did not demonstrate attainment by December 31, 1994, but rather included the alternative demonstration that attainment by that date is impracticable. Therefore, section 189(c) did not apply to the State's moderate area plan.

⁴ See "State Implementation Plans for Serious PM-10 Nonattainment Areas, and Attainment Date Waivers for PM-10 Nonattainment Areas Generally; Addendum to the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990," 59 FR 41998 (August 16, 1996).

⁵ Section 189(b)(1)(A)(ii) provides for an alternative demonstration of impracticability similar to that available for moderate areas. Since the State did not make such a demonstration, this alternative requirement is not addressed in this notice.

⁶ The reader should refer to both the proposed approval, 59 FR 38402, and the final rule, 60 FR 18010 (April 10, 1995), for EPA's interpretation of the certain moderate area PM-10 requirements of the CAA and the Agency's application of these interpretations to the State's moderate area PM-10 plan. Those notices should also be consulted for the history of the State's PM-10 plan submittals and EPA's actions concerning them.

⁷ The reader is referred to the text of the opinion for the court's disposition of the range of issues raised by ACLPI in its petition. 84 F.3d 304 (9th Cir. 1996). This notice addresses that disposition only as it relates to the 24-hour standard. See also 61 FR 54972 (October 23, 1996) in which EPA preliminarily addresses the court's opinion as it relates to the RACM, RFP and attainment demonstrations for the annual standard.

⁸ While EPA could have sought clarification from the Ninth Circuit in order to apply its interpretation in the context of compliance with the court's remedies in Ober, the Agency did not believe that it would have been in the public interest to do so. Such a review would necessarily have occurred without benefit of a thorough briefing on the issue and in the

absence of an administrative record. The Agency does, however, reserve its right to assert its interpretation in any challenge to EPA's implementation of the court's remedies or in the context of other reclassifications. Because EPA is not applying this interpretation in this rulemaking, it does not constitute final agency action.

⁹ ADEQ requested that EPA propose action on the draft plan in parallel with the State's public comment period (see March 28, 1997 submittal letter); however, the final plan was submitted before EPA could do so. Therefore, EPA's evaluation of the microscale plan, as described in this notice, is based on the final plan and all references in this notice are to that plan.

¹⁰ The East Chandler site was dropped from the microscale plan because there was insufficient source activity information to develop a useable inventory for modeling the exceedances at the site. Plan, Appendix A, p. 3-1. From the information that is available about the East Chandler site, it appears that exceedances there have similar causes to those at the modeled West Chandler site, that is, they are related to windblown dust during high winds from a mix of urban and agricultural sources. See facsimiles, Randy Sedlacek, ADEQ, to Frances Wicher, EPA, May 21, 1997 (found in the docket). The Gilbert site also had similar source characteristics. Plan, Appendix A, p. 4-7. Therefore, RACM/BACM implemented for the West Chandler and Gilbert sites should also contribute to emission reductions at the East Chandler site. Consequently there will be no further reference to this site in this notice.

¹¹ The South Phoenix site was not included in the microscale plan because it did not record any 24-hour PM-10 exceedances in 1995. EPA's criterion for determining which sites were to be analyzed in the microscale plan was whether the site had recorded exceedances of the 24-hour NAAQS during 1995.

¹² For the Gilbert and Maryvale sites, the April 9, 1995 exceedance was

the only 24-hour exceedance recorded in 1995. The West Chandler site recorded a second exceedance on July 30, 1995. Plan, p. 15. This exceedance also appears to be related to a high wind event. Plan, Appendix A, p. 3-4.

¹³ The microscale plan does not demonstrate attainment at the Gilbert and West Chandler sites; therefore, this point is moot. When additional controls are analyzed for these sites, an array of points within each modeling domain should be evaluated. Evaluation of controls at a single point will not be adequate for an attainment demonstration.

¹⁴ The Maricopa County Board of Supervisors adopted on May 14, 1997 a resolution committing to implement improvements to the administration of the fugitive dust control program and to foster interagency cooperation to address fugitive dust. The microscale plan included the draft resolution, and ADEQ transmitted the adopted resolution to EPA on May 27, 1997. See letter from Nancy Wrona, ADEQ, to John Kennedy, EPA.

¹⁵ Background concentrations at each of the monitoring sites were substantial (80 to 90 $\mu\text{g}/\text{m}^3$). Analysis of the causes of the high background levels was not part of the microscale protocol. It is possible, therefore, that there are other significant sources contributing to the exceedances at the monitors that have not been identified because they only contribute to the background.

¹⁶ The identified control measures for unpaved parking lots are also applicable to unpaved roads.

¹⁷ Application of Rule 310 to agricultural sources including fields and aprons is affected by the provision in section 102 (incorporating A.R.S. 49-504.4) that the rule "shall not be construed so as to prevent normal farm cultural practices." Therefore, applicability of the rule to such sources depends on what dust-generating operation is occurring at the source. In other words, Rule 310 applies to some operations on agricultural fields and aprons and not to others.

¹⁸ This provision was subsequently deleted from the rule.

¹⁹ Maricopa County's interpretation of the prohibition in A.R.S. 49-504.4 that county air pollution control agencies cannot "prevent [] normal farm cultural practices which cause dust" has effectively exempted agricultural sources from the permit requirements of Rule 310. Plan, p. 31.

²⁰ During the fall and winter this Coordinator is also responsible for implementing the County's residential wood burning restriction rule. Given the demonstrated contribution of earth moving sources to Maricopa area PM-10 exceedances, MCESD may want to re-evaluate splitting the Coordinator's time between the fugitive dust and no burn programs

²¹ MCESD is addressing the permitting process for stationary sources subject to dust control plan requirements in a work flow review and analysis of the Department's permitting process. Recommendations from this review (such as revised permitting procedures) will be implemented in July, 1997. Plan, Appendix E, Bell letter. Improved permitting of these sources should result in better inspections.

²² EPA recently complete a review of permit files at MCESD. One of the focuses of this file review was to evaluate the effect of the SOPs on the completeness and quality of inspections. The review showed that the SOPs have resulted in more thorough and higher quality inspections. Memorandum, Colleen McKaughan to Doug McDaniel, "File Review at Maricopa County Environmental Services Department April 7 - 10, 1997" May 19, 1997 (found in the docket).

²³ The microscale plan only assumes emission reductions from sources subject to permitting (e.g., earth moving, disturbed cleared areas). No reductions are assumed for nonpermitted sources (e.g., vacant lots, unpaved parking). See Plan, pp. 37 - 40.

²⁴ Many of the cities and towns in Maricopa County have already committed to undertake other PM-10 control measures such as paving unpaved roads. See MAG 1991 Particulate Plan.

²⁵ As noted previously (footnote 15), there may be other significant

sources impacting the monitors that were not identified in the microscale modeling because they formed part of the background concentration.

²⁶ Haul roads are considered permitted sources in the microscale plan because, at the Salt River site where this category was significant, the haul roads are located on permitted sourcea.

²⁷ The FIP deadlines each advance 2 months if EPA fails to act on the microscale plan by July 18, 1997.